### THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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Ex parte DENNIS R. SALAZAR

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Appeal No. 98-0806 Application No. 08/693,588<sup>1</sup>

ON BRIEF

Before McCANDLISH, Senior Administrative Patent Judge, MEISTER and PATE, Administrative Patent Judges.

MEISTER, Administrative Patent Judge.

<sup>&</sup>lt;sup>1</sup> Application for patent filed July 23, 1996. According to appellant, this application is a continuation-in-part of U.S. Patent 5,538,043 issued July 23, 1996, based on application 08/268,298 filed June 29, 1994.

#### DECISION ON APPEAL

Dennis R. Salazar (the appellant) appeals from the final rejection of claims 1-4, 6-9, 11-16, 18-21, 23 and 24, the only claims remaining in the application.

We AFFIRM-IN-PART.

The appellant's invention pertains to a method and apparatus for protecting a pipeline against damage resulting from excessive internal pressures (e.g., the pressures created by the freezing of an aqueous fluid within the pipeline). Independent claims 1 and 7 are further illustrative of the appealed subject matter and a copy thereof may be found in the appendix to the brief.

The references relied on by the examiner are:

McMichael	2,029,630		Feb.
4, 1936			
Fritzberg	2,599,325		Jun.
3, 1952			
Bellows	4,440,154	Apr.	3,
1984			

Claims 1-4, 7-9 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fritzberg in view of Bellows.

Claims 6, 11, 13-16, 18-21, 23 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fritzberg in view of Bellows and McMichael.

The examiner's rejections are explained on pages 3-5 of the answer. The arguments of the appellant and examiner in support of their respective positions may be found on pages 4-14 of the brief and pages 6-8 of the answer.

#### OPINION

As a preliminary matter, we base our understanding of the appealed subject matter upon the following interpretation of the terminology appearing in the claims. In lines 9 and 11 of claim 1, lines 2 and 4 of claim 2, line 7 of claim 7, line 3 of claim 12, lines 9 and 11 of claim 13, lines 2 and 4 of claim 14, line 7 of claim 19 (both occurrences) and lines 2 and 3 of claim 24 we interpret "pipe" to be -- pipeline --.

On page 4 on the brief the appellant has stated that: claims 1-4, 7, 8 and 12 stand or fall together as a first group, claims 6 and 11 stand or fall together as a second group, claims 13-16, 18-20, 23 and 24 stand or fall together as a third group and claims 9 and 21 are separately

patentable. Accordingly, claims 1-4, 7, 8 and 12 will stand or fall with representative claim 7. Claims 6 and 11 will stand or fall with representative claim 11. Claims 13-16, 18-20, 23 and 24 will stand or fall with representative claim 19. Claims 9 and 21 will stand or fall alone. See 37 CFR § 1.192(c)(7).

We have carefully reviewed the appellant's invention as described in the specification, the appealed claims, the prior art applied by the examiner and the respective positions advanced by the appellant in the brief and by the examiner in the answer. As a consequence of this review, we will sustain the rejections of claims 1-4, 7, 8, 12-16, 18-20, 23 and 24, but not the rejections of claims 6, 9, 11 and 21. Our reasons for these determinations follow.

Considering first the rejection of claims 1-4, 7, 8 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Fritzberg in view of Bellows, it is the examiner's position that it would have been obvious "to modify the clip of Fritzberg to be of a substantially planar structure" (answer, page 4) in view of the teachings of Bellows. The appellant, however, contends that (1) Bellows represents non-analogous

art and (2) even if Bellows is analogous art, there is no suggestion to combine the teachings of Fritzberg and Bellows in the manner proposed by the examiner. We are unpersuaded by the appellant's arguments.

Considering first the question of whether Bellows

represents non-analogous art, we initially note it is well settled that the prior art relevant to an obviousness determination encompasses not only the field of the inventor's endeavor but also any analogous arts. Heidelberger Druckmaschinen AG v. Hantscho Commercial Products Inc., 21 F.3d 1068, 1071, 30 USPQ2d 1377, 1379 (Fed. Cir. 1994). test of whether a reference is from a non-analogous art is first, whether it is within the field of the inventor's endeavor, and second, if it is not, whether it is reasonably pertinent to the particular problem with which the inventor was involved. In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979). A reference is reasonably pertinent if, even though it may be in a different field of endeavor, it is one which because of the matter with which it deals, logically would have commended itself to an inventor's attention in

considering his problem. *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1061 (Fed. Cir. 1992).

Here, the appellant notes that Bellows is directed to a solar energy collecting apparatus and is in no way concerned with providing a safeguard for protecting pipes against damage due to the freezing of aqueous fluids contained therein, and thereafter urges that Bellows is not within the appellant's field of endeavor. It is also the appellant's contention that Bellows is not reasonably pertinent to the appellant's problem since Bellows' clip 37 is used to secure an elongated cylindrical member within a tubular member which has no fluid flow therethrough whereas the appellant's clip 32 solves the problem of how to anchor the tubular core 10 against the force of fluid flowing within a pipe. This latter argument, however, is based on an overly narrow view of what prior art is reasonably pertinent to the appellant's invention.

There is little doubt that Bellows is not within the same field of endeavor as the appellant's device which protects pipes against damage due to the freezing of aqueous fluid contained therein. However, all the problems encountered by the appellant are not unique only to such devices or, for that

matter, unique only to pipes having fluid flowing therethrough as the appellant would apparently have us believe. Instead, a problem encountered by the appellant more broadly includes the attaching or supporting of a cylindrical core within the interior of a tubular member, i.e., a pipe, (see, e.g., specification, page 3, lines 16-27). Bellows, albeit in the environment of solar collecting apparatus, clearly teaches the attaching or supporting of a cylindrical member or core 16 within the interior of a tubular member 10 by means of a clip 37 having free ends 46 and 47 which firmly grip the tubular member's inner wall (see column 3, lines 45 and 46) and a coil or loop 41 which grips the core firmly (see column 3, line 21). Given the nature of the appellant's problem of attaching or supporting a cylindrical core within the interior of a tubular member, one of ordinary skill in the art would have consulted other areas where cylindrical members are supported or attached within the interior of a pipe or tubular member (such as the solar collector art) for this relatively simple mechanical concept. See, e.g., In re Heldt, 433 F.2d 808, 812, 167 USPQ 676, 679 (CCPA 1970), In re Ellis, 476 F.2d

1370, 1372, 177 USPQ 526, 527 (CCPA 1973), Union Carbide Corp.

v. American Can Co., 724 F.2d 1567, 1572, 220 USPQ 584, 588-89

(Fed. Cir. 1984) and In re GPAC Inc., 57 F.3d 1573, 1578-79,

35 USPQ2d 1116, 1120-21 (Fed. Cir. 1995). This being the case, the second prong of the test in Wood is satisfied and Bellows is analogous art.

Turning to the question of whether it would have been obvious to combine the teachings of Fritzberg and Bellows, the appellant urges that the examiner did not identify in the references any teaching, suggestion, or incentive to combine their teachings and asserts that the examiner has used a hindsight reconstruction of the references in arriving at a conclusion of obviousness. We are unpersuaded by such a contention. While the obviousness of an invention cannot be established by combining the teachings of the prior art absent some teaching, suggestion or incentive supporting the combination (see ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)), this does not mean that the cited references or prior must specifically suggest making the combination (B.F.

Goodrich Co. V. Aircraft Braking Systems Corp., 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996) and In re Nilssen, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988)).

Rather, obviousness is established by what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).

As the examiner has noted, Fritzberg in the embodiment of Fig. 5 teaches a device for protecting pipes against damage due to the freezing of aqueous fluids contained therein (see, e.g., column 1, lines 4-18) including a clip 17 for attaching or supporting a resilient cylindrical core 20 on the interior of the pipes. The clip 17 of Fritzberg has a coiled portion having an axial extent and thus cannot be considered to be "substantially planar" as claimed. Bellows, however, teaches that clips for attaching or supporting a cylindrical core 16 on the interior of a tubular member may be either (1) of the "substantially planar" type as shown in Fig. 3 or (2) of the type having a coiled portion with an axial extent as shown in

Fig. 7, thus clearly teaching that either of these two alternative constructions may

be used as desired. Applying the test for obviousness<sup>2</sup> as set forth in *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981), we are convinced that the combined teachings of Fritzberg and Bellows would have fairly suggested to one of ordinary skill in this art to modify Fritzberg's clip 17 (having a coiled portion with an axial extent) to be of a substantially planar structure in view of the teachings of Bellows.

In view of the foregoing, we will sustain the rejection of claims 1-4, 7, 8 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Fritzberg in view of Bellows.

Turning to the rejection of claims 6 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Fritzberg in view of Bellows and McMichael, the examiner is of the opinion that it would further have been obvious to tie the core of

<sup>&</sup>lt;sup>2</sup> The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.

Fritzberg to the first compression clip in view of the teachings of McMichael. The appellant, however, argues that

"tying," especially when interpreted with reference to Applicant's specification, means "fastening or securing with or as if with a cord, rope or strap," or "fastening by drawing together the parts or sides and knotting with strings or laces." \*American\*\*
Heritage Dictionary, p. 1874 (3d ed., Houghton Mifflin, 1992). McMichael's alleged "means for tying" is disclosed to be a "metallic link of wire" which is "bent and looped" but is not "tied" in the ordinary sense of the word. McMichael, col. 4, lines 36-37 and 52-54. [Brief, pages 11-12.]

We find ourselves in agreement with the appellant's position. As the appellant has noted, McMichael teaches a metallic link of wire 26 that is bent and looped. In support of the position that the wire link 26 of McMichael can be considered to teach a step of, or means for, "tying," the examiner has cited a dictionary definition of the "tie" as meaning "to restrain from independence freedom of action or choice" (answer, page 7). We must point out, however, that the indiscriminate reliance on definitions found in dictionaries can often produce absurd results. In re Salem, 553 F.2d 676, 682, 193 USPQ 513, 518 (CCPA 1977). Instead, the terms in a claim should be interpreted in a manner

consistent with the specification and construed as those skilled in the art would construe them (In re Bond, 910 F.2d 831, 833, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990), Specialty Composites v. Cabot Corp., 845 F.2d 981, 986, 6 USPQ2d 1601, 1604 (Fed. Cir. 1988) and In re Sneed, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983)). Here, we can think of no circumstances under which the artisan, consistent with the appellant's specification, would construe the link 26 of McMichael as corresponding to the claimed step of, or means for, tying. This being the case we will not sustain the rejection of claims 6 and 11 under 35 U.S.C. § 103(a) based on the combined teachings of Fritzberg, Bellows and McMichael.

Turning to the rejection of claims 13-16, 18-20, 23 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Fritzberg in view of Bellows and McMichael, the examiner considers that it would further have been obvious to provide the core of Fritzberg with a reinforcing jacket in view of the teachings of McMichael. The appellant concedes that McMichael teaches that the rubber wall 19c or jacket surrounding the core 19b is "tough, flexible and resistant to the action of

air and water" (see McMichael, page 2, column 1, lines 64-66) but nevertheless urges that the examiner has not identified any motive or suggestion in the art for modifying the disclosure of Fritzberg in view of this teaching. point out, however, that McMichael (page 2, column 1, lines 54-58) expressly teaches that such a rubber wall or reinforcing jacket is provided for the purpose of obtaining "adequate compressibility" of the core and "yet assure the desired resistance to wear." Accordingly, one of ordinary skill in this art would have been motivated to provide the core of Fritzberg with a rubber reinforcing jacket as taught by McMichael in order to achieve McMichael's expressly stated advantage of assuring the desired resistance to wear while at the same time obtaining adequate compressibility of the core. Therefore, we will sustain the rejection of claims 13-16, 18-20, 23 and 24 under 35 U.S.C. § 103(a) based on the combined teachings of Fritzberg, Bellows and McMichael.

Considering last the rejections under 35 U.S.C. § 103(a) of claim 9 as being unpatentable over Fritzberg in view of Bellows and claim 21 as being unpatentable over Fritzberg in view of Bellows and McMichael, these two claims each expressly

require the core be "squeezed through" the loop of the clip. With respect to this limitation, the examiner is apparently of the opinion that Bellows teaches such an arrangement. While Bellows does state in line 21 of column 3 that the coil 41 grips the energy absorber 16 (which is a stainless steel tube coated with successive layers of aluminum, silicon oxide, chromium oxide, and silicon oxide - see column 2, lines 53-56) "firmly," it does not follow that it can be considered to be "squeezed through" the loop as claimed. Accordingly, we will not sustain the rejections under 35 U.S.C. § 103(a) of claim 9 based on the combined teachings of Fritzberg and Bellows and of 21 based on the combined teachings of Fritzberg, Bellows and McMichael.

#### In summary:

The rejections of claims 1-4, 7, 8, 12-16, 18-20, 23 and 24 under 35 U.S.C. § 103(a) are affirmed.

The rejections of claims 6, 9, 11 and 21 under 35 U.S.C. § 103(a) are reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR  $\S 1.136(a)$ .

## AFFIRMED-IN-PART

HARRISON E. McCANDLISH, Senior	)	
Administrative Patent Judge	)	
	)	
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	)	
	)	BOARD OF PATENT
JAMES M. MEISTER	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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WILLIAM F. PATE III	)	
Administrative Patent Judge	)	

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